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## DISASTER MANAGEMENT: THE IMPACT OF FLOOD DISASTER ON SMALL MEDIUM ENTERPRISES IN MALAYSIA

#### Zaitun Mohd. Taib

Faculty of Economics and Management, Universiti Putra Malaysia (UPM), 43400 Serdang, Selangor, Malaysia. E-mail: fadilahyau@yahoo.com

#### Nor Siah Jaharuddin

Faculty of Economics and Management, Universiti Putra Malaysia (UPM), 43400 Serdang, Selangor, Malaysia. E-mail: norsiah\_upm@edu.my

#### ABSTRACT

Flood is the most devastating natural disaster experienced which damages to human life and deterioration of environment. Malaysia has experienced major floods in various states since 1920s, but the most destructive flood in the history of the state occur currently in Kelantan in the year of 2014 which likely to exceed more than RM1 billion losses or equal to USD 300 million (Malaysia National Security Council, 2015). Floods inflicted a huge negative impact to the economy and society, especially private properties, businesses and industries such as small medium enterprises (SMEs). Most businesses are short of financing to cover the losses incurred which lead to intention to quit among the SMEs by cease operation or to run at less capacity due to the floods. Since SMEs plays a prominent role to economics, there is a need for Qardhul Hasan financing scheme in helping those affected SMEs to rebuild their business without going through complicated process and high interest rate from microfinance institutions and banks in order to obtain a loan.

#### **INTRODUCTION**

Different disasters occur regularly and frequently due to the changing geo-climate of the world. General natural disaster includes floods, earthquakes, cyclones, landslides, droughts, tidal surges, river bank erosion and other. Without exception, it strikes both developed and developing countries alike that resulted to enormous devastation and human suffering. As for Malaysia, the worst floods experienced occurred during end 2014 and early 2015 with millions of losses to properties and economic. The hit are expected because flood is regular natural disaster in Malaysia which happens nearly every year during the monsoon season. However, the worst was unexpected and leave the rescue team unprepared due to the severity of situation that beyond imagination. It was the most destructive flood in the history that strike

state of Kelantan, Pahang and Perak (National Security Council, 2015). This is where everyone questioning on the disaster management preparation and the recovery plan to mitigate the situation from repeating it worsts especially among the NGOs and government sectors.

The occurrence of severe flood gives a nightmare to the victims. Thousands of those affected losing shelter, damage to property, and jobs. Many of them are farmer, rubber tapper and people who involve in small and medium enterprises (SMEs). As floods hit, the victims are helpless since they are rundown of money, no capital and property to continue with daily life and restart previous business due to severe property damage. This situation had affected the economy condition and personal adversity in Malaysia since SMEs play an important role in economic condition of a country (SMECorp, 2015). Many businesses might have an intention to quit without any help and proper assistance given, thus forced them to close down business and never re-open at all after the disaster. A study by Vinet (2008) shows that the floods affected and bring damaged to home, shops and industries. Often flood victims faced problem with the cost of repair and some small shops do not re-open after the disaster.

Even though the area of disaster management has received considerable attention due to its impact to one's country, Malaysia is not prepared for it. The most recent experienced in early 2015 has open the eyes of many parties especially among NGOs and government agencies to find the best remedies to ensure better preparation yet, before it strikes again. While there is a need to find the best solution to overcome the worst of floods, special attention should be given to the SMEs in helping them to assure proper assistance given to them. Most of this SMEs owner raised their concerned on any financial assistance or loans instead of to go through with complicated process and high interest rate to get funding from banks. In addressing this issue, the concept of Qardhul Hassan scheme was introduced to address the problems faced by the SMEs entrepreneurs in helping them to raise funding in continuing their previous business.

Therefore this study is guided by the following questions:

i. What are the impacts of floods to affected businesses and economy?

ii. How importance is the aids in term of financial assistance in recuperating to continue their business?

iii. How does the financing such as Qardhul-Hasan relevance in providing financial assistance to rebuild their business?

#### LITERATURE REVIEW

Disasters are more costly for developing countries: as economies develop, there are fewer disaster-related deaths and damages (Toya & Skidmore, 2007). Nevertheless, increasing wealth causes relatively higher losses in high-income nations due to disaster (Raskly, 2008). Therefore, it is very important for Malaysia to address this issue considerably because it is not only devastated to human life and property, but also to businesses and economic of the country as a whole.

#### **The Occurrence of Flood Disaster**

According to the previous study by Pitt, (2008) flooding is one of the main weather extremes that have influenced the UK in the recent years. For instance, floods in years 2004, 2005, and 2007. The Pitt Review (Pitt, 2008) and the Environment Agency (Chatterton et al., 2010) estimated that flooding of 2007 affected 48,000 homes and about 7,000 businesses in the UK and caused damage to the value of approximately £3 billion. National Risk Register for the UK (Cabinet Office, 2010) identifies coastal and inland flooding as risks that have a quite high likelihood and impact. Furthermore, Environment Agency estimates the expected annual damages to residential and non-residential properties in England at risk of flooding currently to be more than £1 billion (Environment Agency, 2009a). Recent flood events in the UK have caused significant disruptions to the business industry, especially Small and Medium Enterprise (SMEs), which are often affected disproportionately hard by such events and are less prepared to manage the consequences (Crichton, 2006; BMG Research, 2011). Adaptation to the risk of flooding has thus become an issue of significant importance to SMEs, in inhibiting any potential disasters and interruptions to communities, if they are at risk of being flooded.

Flooding can have a critical impact on a business if affected either directly or indirectly. Damaged or lost stock, damage to building/ premises, damaged or lost building equipment, inability to conduct business, and inconvenience to staff were the main short-term impacts experienced by small businesses in Yorkshire affected by 2007 summer floods (EKOS Consulting (UK) Ltd, 2008). Long-term impacts included disrupted cash flow and lost income, staff anxiety from flooding to business, and higher insurance premiums as some of the long-term impacts. In a survey by BMG research (2011) on businesses affected by 2009 Cumbria floods, the costs that have been acquired as a result of damage or loss caused by the storms and flooding, during the event (November 2009) up to August 2010, the mean costs incurred per business were found to be about £35,000, as per the estimates by a sample of 324 businesses. Whereas there may be significant variations in costs incurred by larger businesses and SMEs, the figure suggests how costly flooding can be to a business. Although direct impacts are often highlighted, indirect impacts of flooding can also create negative consequences on businesses. Then,

Woodman (2008) identified staff unavailable for work - 53 per cent, premises flooded (offices, shops, etc.) - 38 per cent, and suppliers disrupted - 27 per cent as the main impacts of flooding experienced by a sample of 255 businesses affected by 2007 flooding, suggesting that the impacts of flooding extend well beyond the direct impacts.

Tourism crises are regularly precipitated by natural disasters such as earthquakes, volcanic eruptions, tropical storms and avalanches. These disasters can be of great magnitude and are exemplified by the 2004 Indian Ocean tsunami which devastated many coastal destinations in India, Indonesia, the Maldives, Malaysia, Myanmar, Sri Lanka and Thailand (Ghaderi, Mat Som, & Henderson 2012; Kelman, Spence, Palmer, Petal, & Saito 2008; Sharpley, 2005). In addition to the massive loss of life and physical damage, the tsunami inspired lingering fear and uncertainty among tourists and tourism businesses (Gurtner, 2007; Rittichainuwat, 2013). Earthquakes in Sichuan in 2008 (Xu & Grunewald, 2009) and Taiwan in 1999 (Huang, Tseng, & Petrick, 2008) also raised concerns about safety and impeded tourist flows. Cancellations and postponement of trips followed the onset of the flooding and overseas travel agents warned against travel to Thailand as the situation deteriorated. Governments such as those of Hong Kong, Singapore, the UK and the United Arab Emirates issued formal advisories about non-essential journeys (Euromonitor, 2011). Hotel occupancies dropped; for instance, the luxury Shangri-La hotel in Bangkok was running at 30% capacity when the expected rate was 70–90% (The Wall Street Journal, 2011). Even if saved from the floods, business suffered as demonstrated by a fall in arrivals of around 25% in popular resorts of Hua Hin, Chiang Mai and Phuket (Citrinot, 2011). International airports experienced a decline of 9% in daily passenger numbers compared to the same period in the previous year and Thai Airways cancelled over 500 flights. Charter services too were cut. Domestic tourism also contracted by around 30% during the flooding, slumping by 70–80% in some areas (Euromonitor International, 2011). SMEs were badly affected and official statistics suggested that around 550,000 small ventures had been directly exposed to the disaster, 163,000 in the service sector (Bangkok Post, 2011). A clear impact on how floods disaster significantly reduced the number of foreign tourists to floods affected tourist destinations.

Other instances of disruption to tourism by natural phenomena, albeit on a smaller scale, are the cyclones and floods to which certain Australian destinations are prone (Beirman, 2012; Faulkner & Vikulov, 2001; Yeo, 2002). Bush fires have harmed tourism, especially small businesses in the Australia state of Victoria (Cioccio & Michael, 2007), and forest fires have had similar effects in British Columbia (Hystad & Keller, 2006). Natural disasters are seen to have the capacity to generate chaos for the tourism industry, with which public and private agencies may struggle to cope (Laws & Prideaux, 2005).

#### Flood Disaster in Malaysia

According to Majlis Keselamatan Negara (2014), disaster can be defined as "an incident that occurs unexpectedly, complex in nature, resulting in the loss of lives and damage to properties and the environment as well as interfering in the daily activities of the local community". For the past few years, the most destructive natural disaster experienced in Malaysia is flood. Flood can be described as any high water flow that dominates the natural or artificial banks in any part of the river system. When a river bank is overtopped, the water extends over the floodplain and generally becomes hazard to the society (Ching et al, 2013). Department of Irrigation and Drainage Malaysia (DID) in 2009 reported that there are total of 189 river basins in Malaysia which 89 of the river basins are in Peninsula Malaysia, 78 in Sabah and 22 in Sarawak with the main channels flowing directly to the South China Sea and 85 of them are prone to recurrent flooding. Approximately 29,800 km2 or 9% of the total Malaysia area are exposed to flood disaster and affecting almost 4.82 million people which is around 22% of the total population of the country (DID, 2009).

Malaysia has experienced major floods in various states since 1920s, but the most destructive flood in the history of the state occurs currently in Kelantan in the year of 2014 (Malaysia's National Security Council (NSC), 2015). According to the statement by Malaysia's National Security Council (NSC) in 2015, the river levels in December 2014 exceeded those of recent record floods of 2004 and 1967. The worst flooding gives a huge negative impact on the business in general on several states especially in Kelantan. According to Malaysian newspaper, Berita Harian (2015), a total of 13,337 SMEs were identified as having been affected by the floods in Kelantan last December 2014. According to International Trade and Industry Minister Datuk Seri Mustapa Mohamed said Pasir Mas recorded the highest number affected at 3,701, followed by Kota Baharu (3,296), Tumpat (1,375), Kuala Krai (2,070), Gua Musang (1,361) and other districts. There are 35,446 SMEs operating in Kelantan and those affected by the recent floods comprise 37.7 percent of the total number.

The serious flooding happened in 2014, gives a huge negative impact on the economy and to society in general on several states especially in Kelantan. These floods are extensive, severe and unpredictable and result in significant loss of life, damage to crops, livestock, property, and public infrastructure (Winstedt, 1927). The Director General of the Drainage and Irrigation Department, Hj Ahmad Hussaini (2015) states that there are two major water-related problems affecting this country; excess water (floods) and water shortage (droughts). Both these problems have disrupted the quality of life and economic growth in the country and can result in severe damage and loss of property, and occasionally loss of human lives, as can be seen in the December 2006 and January 2007 floods in Johor (Hussaini, 2007). Hence, the damage

caused by the recent flooding in parts of north and eastern Malaysia in 2014 is likely to exceed RM1 billion or almost USD\$300 million (Berita Harian, 2014). Based on the statements by Kelantan's Flood Disaster Operations Committee chairman Datuk Seri Mustapa Mohamed in 2014, the flood damage in Kelantan alone almost reached RM200 million.

#### **Small Medium and Enterprises (SMEs)**

According to Bank Negara Malaysia (2014), SME can be defined as in term of cost manufacturing, sales turnover not exceeding RM50 million or full-time employees not exceeding 200 workers; meanwhile in terms of service or other sector, sales turnover not exceeding RM20 million or full-time employees not exceeding 75 worker.

In 2011, Malaysian SMEs continued to enlarge at a relatively stronger pace of 6.8 % and remained resilient to external environment challenges. In 2012, in line with the official GDP projection of 4.5 - 5.0% in 2012, the Malaysian SMEs were expected to record a steady growth pace of 6.5 - 7.0%. The latest profile of SMEs is released in September 2012 which is based on the Economic Census 2011. According to the Census, Malaysian SMEs now represent 97.3% (645,136 establishments) of the total establishments of 662,939 in the country (SME Corp. Malaysia, 2014).

According to Dun and Bradstreet, the main focus for developing nations should be the SMEs. according to (Rose et al., 2006) Small and Medium Enterprises (SMEs) are very important for the unemployment issue and the development of Malaysia's economy. In Malaysian economy, SMEs are very important and play an important role in its development (Omar et al., 2009). SMEs play a vital role in the Malaysian economy and are assumed to be the backbone of industrial development in the country (Saleh & Ndubisi, 2006; Radam et al., 2008).

The future progress of Malaysia seems to depend greatly upon development of SMEs and they are vital for accomplishing vision 2020, to be fully developed and become an industrialized nation by the year 2020. In the year 2020, Malaysia will develop to become an industrialize nation by capitalizing on the country's strengths and by overcoming weaknesses through the SMEs (Omar et al., 2009). However, disasters such as the most recent floods in 2015 often cause small businesses to relocate or cease operation temporarily, which may lead to substantial economic and personal hardship. Many businesses are forced to close after a disaster and never reopen at all. In other word, floods may lead to the intention to quit by affected entrepreneurs when they failed to raise a proper capital in restarting the business.

#### **Impact of Floods to SMEs**

In the Malaysian economy, the role of SMEs is considered as the backbone of the economy (Radam et al., 2008). SMEs, small in its working capital, assets and skilled workforce and other are affected in larger degree due to the floods. Reconstruction costs for some sectors may be higher than total losses due to the need to recreate to higher standards to reduce vulnerability (e.g. housing) and because current construction or environmental standards are higher than when original facilities were built (e.g. sanitation), or because modern equipment or supplies are of higher quality and provide improved services (e.g. health, education). Some of the indirect losses cannot be recovered: production losses from fishing, agriculture, and tourism cancellations cannot be restored. Damaged equipment and inventories will need to be repaired or replace and those SMEs that have taken on business-related loans would now have a hard time meeting their repayment obligations.

Government of Malaysia has implemented various policies, action plans and programs to assist them in difficult circumstances (Char et al., 2010). During hard time, Malaysia experienced the impact of recession as businesses were slowing down and unemployment rate climbing up like other countries. Similarly, floods caused people losing their job because many SMEs are forced to cease operation. Therefore, creating jobs and restoring livelihoods are critical dimensions of the reconstruction process to kick start the economy of the affected area, restore a sense of normalcy, and support the social and economic inclusion of the displaced populations. Such support will need to be rapid if it is to be effective and the reconstruction efforts should be undertaken involving the affected communities directly.

The extensive physical damage, loss of life and livelihoods, and damaged to properties had also cause a huge impact to emotion of the affected communities. The impact of the losses has been exacerbated by the shock and fear caused by the floods. Intangible lasting impacts which focus on the time and effort to return to a normal life such as fear of future flooding, strains within the family and loss of irreplaceable items were more sustained. Most of the SMEs entrepreneur became phobia and trauma to continue their business with fear of countering the disaster again every year which destroyed their hard earned efforts. By having this emotional disturbance with a high possibility of bearing recurring high losses in the near future, this situation may encourage them to cease or quit from business.

#### The concept of Qardhul Hassan as Financial Assistance

Most SMEs require support or assistance from the government, especially to be more competitive in the global business environment. In usual process to obtain funding assistance or financial loans, SMEs owner has to face complicated requirements and high interest rates from microfinance institutions and

banks. The process will take some times and often meticulous process that need to go through which is frustrating to many entrepreneurs. Consequently, the SMEs owner who has started the business with their own capital at first, often give up at the early stage due to their inexperienced in getting the financial aids especially for those who are affected by floods. In countering this difficulties facing by the victims, the concept of Qardhul Hassan financing scheme is seen as the best method to help the businesses without going through complicated process.

According to Obaidullah, M (2008), Qardhul Hassan is defined as a "beautiful loan". The word "qard" is derived from the Arabic word "qirad" which means 'to cut'. When the financier lends to someone, they actually cuts off some of their money and gives it to the borrower. Meanwhile, the word "hasan" in Arabic means "splendid or beautiful". Slightly differ from its original meaning which is beautiful loan, in term of financing, Qardhul Hassan can be define as "a kind of gratuitous loan given to the needy people for a fixed period without requiring the payment of interest or profit" (Hossain, M.D, 2002). Hence, according to Askari et al. (2008), Qardhul Hasan is a charitable loan with no interest, or a zero-interest bearing loan, with low expectations of return of capital. Based on the numerous definition of Qardhul Hassan, it can be conclude that, Qardhul Hassan is an interest free financing where the borrower only needs to pay back the principal amount without any requirement for an additional amount. However, the borrower is encouraged and may pay an additional or extra amount at his/her absolute will as a token of appreciation. Thus, Qardhul Hassan Scheme was introduced as financial aids scheme to address the problems faced by the SMEs entrepreneurs whom affected by disasters.

But how the Qardhul Hassan fund is raised?. This fund can be raised by the initiative of government from the money that is allocated by businesses for corporate social responsibility. This fund is needed by all businesses during the hard time such as disaster because it is the emergency fund that they might need when they are the victim, maybe in future. By having an appropriate social responsibility to help those in needy, it is the best concept that should embrace by all entrepreneurs.

#### CONCLUSION

There are a lot of disaster managements, but Malaysia is not well-prepared for it. After more than half a century of flood management, Malaysia is still subject to severe floods. Indeed, Malaysia will never be flood-free. Floods and other disasters will continue to impact upon the people and bring negative effects on life, properties, business, economics and infrastructure. This is unavoidable. However, what is avoidable is that Malaysians must not forget past disasters. Past disasters present opportunities for us to learn from past mistakes. Just like mistakes from history which we must remember and get some lessons on it, disasters are no different. Once we forget and let our guard down, poor management of disaster may

strike us hard. In fact, Malaysia is still looking for the best solution to effectively manage and overcome the flood disasters.

Subsequently, there are no doubt SMEs play a vital role in developed as well as developing economies equally. Thus, government needs to provide some remedy in helping those affected SMEs in obtaining sufficient assistance to rebuild and continue their business, thus contribute to the economy indirectly. Qardhul Hassan financial scheme is suggested to be applied in assisting the entrepreneur to restart business.

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